

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Paul A. Farrar et al.

Title: BURIED CONDUCTORS

Docket No.: 303.367US2

Filed: August 15, 2001

Examiner: Ha Nguyen

Serial No.: 09/930521

Due Date: July 3, 2003

Group Art Unit: 2812



TECHNOLOGY CENTER 2800

JUL 16 2003

RECEIVED

Commissioner for Patents
P.O.Box 1450
Alexandria, VA 22313-1450

We are transmitting herewith the following attached items (as indicated with an "X"):

- ☒ A return postcard.
- ☒ An Amendment and Response (12 Pages).
- ☒ Permission to charge Deposit Acct. No. 19-0743 in the amount of \$120.00 to cover the fee for additional claims as calculated below.
- ☒ A Copy of the Notice of Allowability for Application No. 09/069,326 (6 pgs.).

If the additional fee is required due to changes to the claims, the fee has been calculated as follows:

CLAIMS AS AMENDED						
	(1) Claims Remaining After Amendment		(2) Highest Number Previously Paid For	(3) Present Extra	Rate	Fee
TOTAL CLAIMS	34	-	32	2	x 18.00 =	\$36.00
INDEPENDENT CLAIMS	4	-	3	1	x 84.00 =	\$84.00
[] MULTIPLE DEPENDENT CLAIMS PRESENTED						\$0.00
TOTAL						\$120.00

Please consider this a PETITION FOR EXTENSION OF TIME for sufficient number of months to enter these papers and please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. Box 2938, Minneapolis, MN 55402 (612-373-6900)

By:
Atty: Timothy B Clise
Reg. No. 40,957

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner for Patents, P.O.Box 1450, Alexandria, VA 22313-1450, on this 3rd day of July, 2003.

Amy Moriarty

Name

Customer Number 21186

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
(GENERAL)

Signature

P.O. Box 2938, Minneapolis, MN 55402 (612-373-6900)



COPY

Notice of Allowability

Application No.

09/069,326

Examiner

ori nadav

Applicant(s)

FARRAR ET AL.

Art Unit

2811

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to AMENDMENT FILED ON 2/5/2003.
2. ☒ The allowed claim(s) is/are 42, 43, 45-60 and 62-74.
3. ☒ The drawings filed on 29 April 1998 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☒ CORRECTED DRAWINGS must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No. _____.
- (b) ☒ including changes required by the proposed drawing correction filed 1/17/01 and 4/30/03, which has been approved by the Examiner.
- (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the top margin (not the back) of each sheet. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1 ☐ Notice of References Cited (PTO-892)
- 3 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 5 ☒ Information Disclosure Statements (PTO-1449), Paper No. 37.
- 7 ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

- 2 ☐ Notice of Informal Patent Application (PTO-152)
- 4 ☒ Interview Summary (PTO-413), Paper No. 40.
- 6 ☐ Examiner's Amendment/Comment
- 8 ☒ Examiner's Statement of Reasons for Allowance
- 9 ☐ Other

ori nadav
patent examiner

Art Unit: 2811



DETAILED ACTION

Drawings

1. The corrected or substitute drawings were received on 4/30/2003. These drawings are approved by the examiner. A proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.

Allowable Subject Matter

2. Claims 42-43, 45-60 and 62-74 are allowed.

Reasons for allowance

3. The following is an examiner's statement of reasons for allowance:
Esquivel et al. (4,977,439) appear to be the closest prior art reference. Esquivel et al. teach substantially the entire claimed structure as recited in claim 42, except plurality of substantially parallel second conductive elements connected to conductive parts that extend upwardly on opposite sides of the first buried layer beyond the first depth adjacent outer ones of the substantially parallel first conductive elements. Therefore, prior art do not teach or render obviousness the semiconductor structure, as claimed.

RECEIVED
JUL 16 2003
TECHNOLOGY CENTER 2800

Art Unit: 2811

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Papers related to this application may be submitted to Technology center (TC) 2800 by facsimile transmission. Papers should be faxed to TC 2800 via the TC 2800 Fax center located in Crystal Plaza 4, room 4-C23. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Group 2811 Fax Center number is (703) 308-7722 and 308-7724. The Group 2811 Fax Center is to be used only for papers related to Group 2811 applications.

Any inquiry concerning this communication or any earlier communication from the Examiner should be directed to *Examiner Nadav* whose telephone number is (703) 308-8138. The Examiner is in the Office generally between the hours of 7 AM to 4 PM (Eastern Standard Time) Monday through Friday.

Application/Control Number: 09/069,326

COPY

Page 4

Art Unit: 2811

Any inquiry of a general nature or relating to the status of this application should be directed to the **Technology Center Receptionists** whose telephone number is **308-0956**



O.N.
April 30, 2003

ORI NADAV
PATENT EXAMINER
TECHNOLOGY CENTER 2800

Interview Summary

COPY

Application No.

09/069,326

Applicant(s)

FARRAR ET AL.

Examiner

ori nadav

Art Unit

2811

All participants (applicant, applicant's representative, PTO personnel):

(1) ori nadav.

(3) _____

(2) timothy clise.

(4) _____

Date of Interview: 25, 29 & 30 4/03



Type: a) ☒ Telephonic b) ☐ Video Conference
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.

If Yes, brief description: _____

Claim(s) discussed: 42, 43, 45-60 and 62-74.

Identification of prior art discussed: Equivel et al.

Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Mr. Timothy Clise agreed to amend the claims as suggested by the examiner.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

RECEIVED
JUL 16 2003
TECHNOLOGY CENTER 2800

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

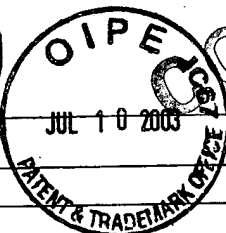
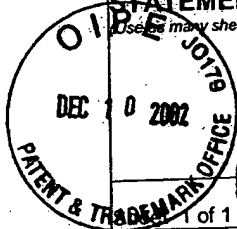
Examiner's signature, if required

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO
**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Use as many sheets as necessary)

Complete if Known

Application Number	09/069326
Filing Date	April 29, 1998
First Named Inventor	Farrar, Paul
Group Art Unit	2811
Examiner Name	Nadav, O.
Attorney Docket No. 303.367US1	



US PATENT DOCUMENTS

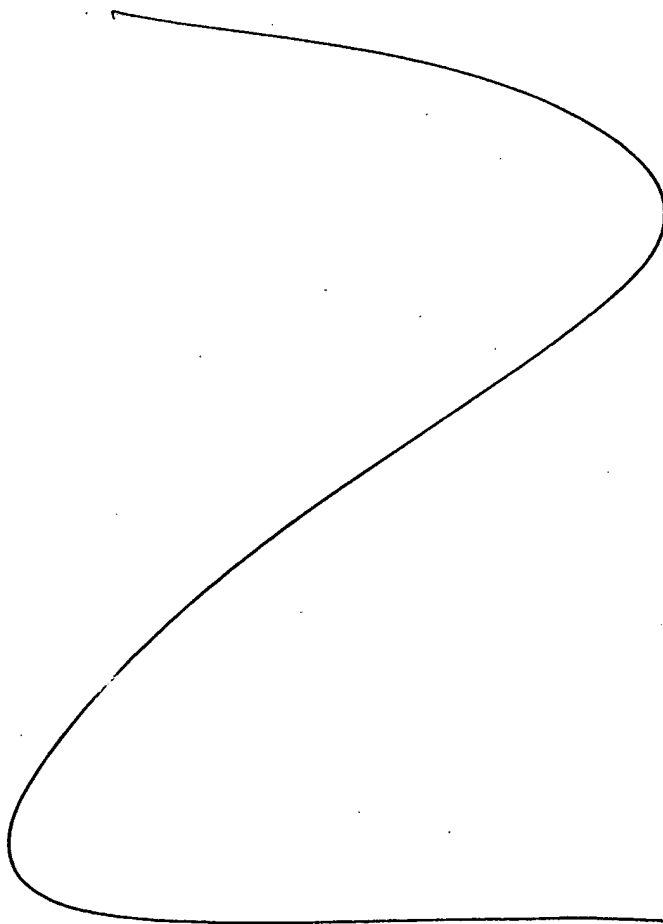
Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	Filing Date If Appropriate
ON	US-4,461,041	07/17/1984	Dobrovoly, P.	455	328	01/05/1983
ON	US-5,891,513	04/06/1999	Dubin, V., et al	427	98	01/16/1996

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	T ²
--------------------	---------------------	------------------	---	-------	----------	----------------

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁴
--------------------	----------------------	---	----------------



RECEIVED
JUL 16 2003
TECHNOLOGY CENTER 2800
RECEIVED
DEC 12 2002
ETC 2800 MAIL ROOM

EXAMINER

ON

DATE CONSIDERED

4/4/03

Substitute Disclosure Statement Form (PTO-1449)

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached